

EN

P18Lxxx

Retro-Reflex Sensor



Interface Description

IO-Link P18Lxxx

Vendor ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
wenglor sensoric GmbH	0x0057	87	00 57	0 87

Device ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
P18L001	0x2A0404	2753540	2A 04 04	42 4 4
P18L002	0x2A0405	2753541	2A 04 05	42 4 5
P18L003	0x2A0406	2753542	2A 04 06	42 4 6
P18L004	0x2A0407	2753543	2A 04 07	42 4 7
P18L006	0x2A0408	2753544	2A 04 08	42 4 8

IO-Link Version:	V1.1
Parameter Server / Data Storage:	No
Blockparameter:	No
MinCycletime:	4,8 ms
SIO-Mode:	Yes
COM-Mode:	COM2
ISDU:	No
Process data In (Device to Master)	16 Bit
Process data Out (Master to Device)	–

Process data (Length: 16 Bit)

Subindex	Name	Bit Offset	Data Type	Valid for versions	Range
1	A1 Output	0	Bool	all	0 = Off 1 = On
2	Signal Warning	1	Bool	all	0 = Off 1 = On
3	---	2	---	---	---
4	---	3	---	---	---
5	Short Circuit	4	Bool	all	0 = Off 1 = On
6	---	5	---	---	---
7	Overtemperature	6	Bool	all	0 = Off 1 = On
8	Memory Busy	7	Bool	all	0 = Off 1 = On
9	Signal	8	Uint8	all	0...255

Octet 0

Subindex	9							
Bit Offset	15	14	13	12	11	10	9	8

Octet 1

Subindex	8	7	6	5	4	3	2	1
Bit Offset	7	6	5	4	3	2	1	0

Parameter

Name	Index (hex)	Index (dec)	Sub-index	R/W	Datatype	Default value	Range
Identification							
Parameter.Serial number	0x0001	1	12...15	R	Uint32		
Direct Parameters 1. Vendor ID 1	0x0000	0	8	R	Uint8	0	
Direct Parameters 1. Vendor ID 2	0x0000	0	9	R	Uint8	87	
Direct Parameters 1. Device ID 1	0x0000	0	10	R	Uint8	-	
Direct Parameters 1. Device ID 2	0x0000	0	11	R	Uint8	-	
Direct Parameters 1. Device ID 3	0x0000	0	12	R	Uint8	-	
Parameter							
Write parameters to OTP memory	0x0001	1	16	R/W	Uint8	0 = No Action	0 = No Action 148 = Write parameters
Counter OTP memory	0x0001	1	5	R	Uint8	0	0...255
OFF Delay	0x0001	1	4 (Bit0...2)	R/W	Uint3	0 = off	0 = off 1 = 2 ms 2 = 5 ms 3 = 10 ms 4 = 20 ms 5 = 50 ms 6 = 100 ms 7 = 200 ms
ON Delay	0x0001	1	4 (Bit3...5)	R/W	Uint3	0 = off	0 = off 1 = 2 ms 2 = 5 ms 3 = 10 ms 4 = 20 ms 5 = 50 ms 6 = 100 ms 7 = 200 ms
Operating Mode	0x0001	1	4 (Bit7)	R/W	Bool	0 = Standard	0 = Standard 1 = Speed
Switch Point	0x0001	1	3	R/W	Uint8	255	0...255
A1 NO/NC	0x0001	1	2 (Bit0)	R/W	Bool	0 = NO: P18L001 P18L003 P18L006 1 = NC: P18L002 P18L004	0 = NO 1 = NC
A2 Pin Function	0x0001	1	2 (Bit1...2)	R/W	Uint2	0 = Antivalent P18L006 2 = Error (NC) P18L003 P18L004 3 = deactivated P18L001 P18L002	0 = Antivalent 1 = Error (NO) 2 = Error (NC) 3 = deactivated
PNP/NPN	0x0001	1	2 (Bit3...4)	R/W	Uint2	1 = PNP P18L001 P18L002 P18L003 P18L004 P18L006	0 = Push-Pull 1 = PNP 2 = NPN 3 = deactivated
Source SwitchPoint	0x0001	1	2 (Bit5)	R/W	Bool	0 = Potentiometer	0 = Potentiometer 1 = IO-Link
Hysteresis	0x0001	1	2 (Bit6)	R/W	Bool	0 = small	0 = small 1 = large
Emitted Light	0x0001	1	2 (Bit7)	R/W	Bool	0 = on	0 = on 1 = off

Notes for the use of the IODD

RAM-memory

The changed parameters are stored in the volatile memory of the sensor. This could be used for testing and if the configuration of the sensor changes often (e. g. for different production batches).

Changes have the following effects:

- Sensor behavior is adjusted immediately without a restart according to the changed parameter.
- In case of a sensor restart (e. g. by turning power off and on) the settings are lost.
- Changes have no effects on the OTP-memory of the sensor.

OTP-memory

By writing the parameters, they are stored in the non-volatile memory. At every start-up the OTP parameters are loaded to the RAM of the sensor. The OTP-memory has limited write cycles. The wenglor sensoric GmbH can guarantee at least 240 writes to the OTP-memory at delivery.

The current number of writes is readable from the parameter "Counter OTP memory".

Procedure to save parameters in the OTP-memory of the sensor:

1. Test the sensor settings within the application until the desired configuration is clear.
2. Set the parameter "Write parameters to OTP memory" to "write parameters" and send it to the sensor.
3. The configuration is applied directly, and after a restart it is loaded from the OTP-memory.
4. New configuration is stored in the sensors RAM and OTP-memory.